世界环境史

[美] 威廉 · H. 麦克尼尔 [美] 约翰 · R. 麦克尼尔 等 编著
王玉山 译

WORLD ENVIRONMENTAL HISTORY

William H. McNeill & John R. McNeill et al

中信出版集团

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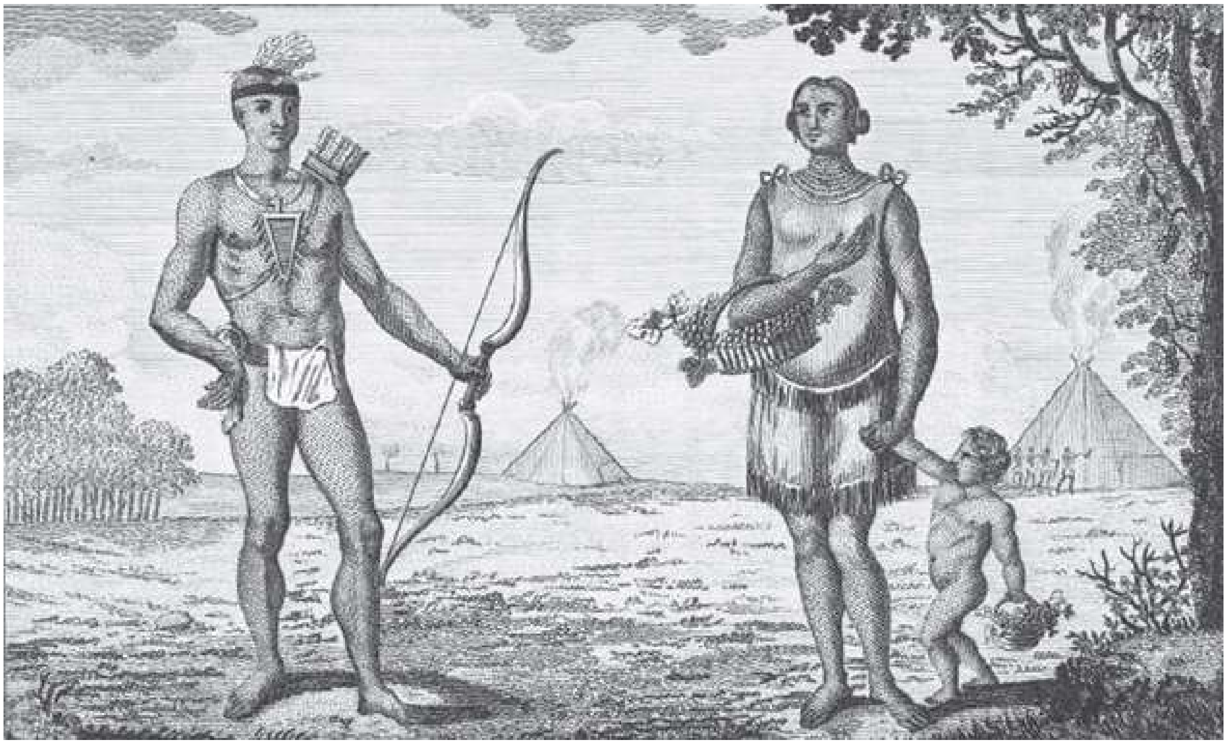
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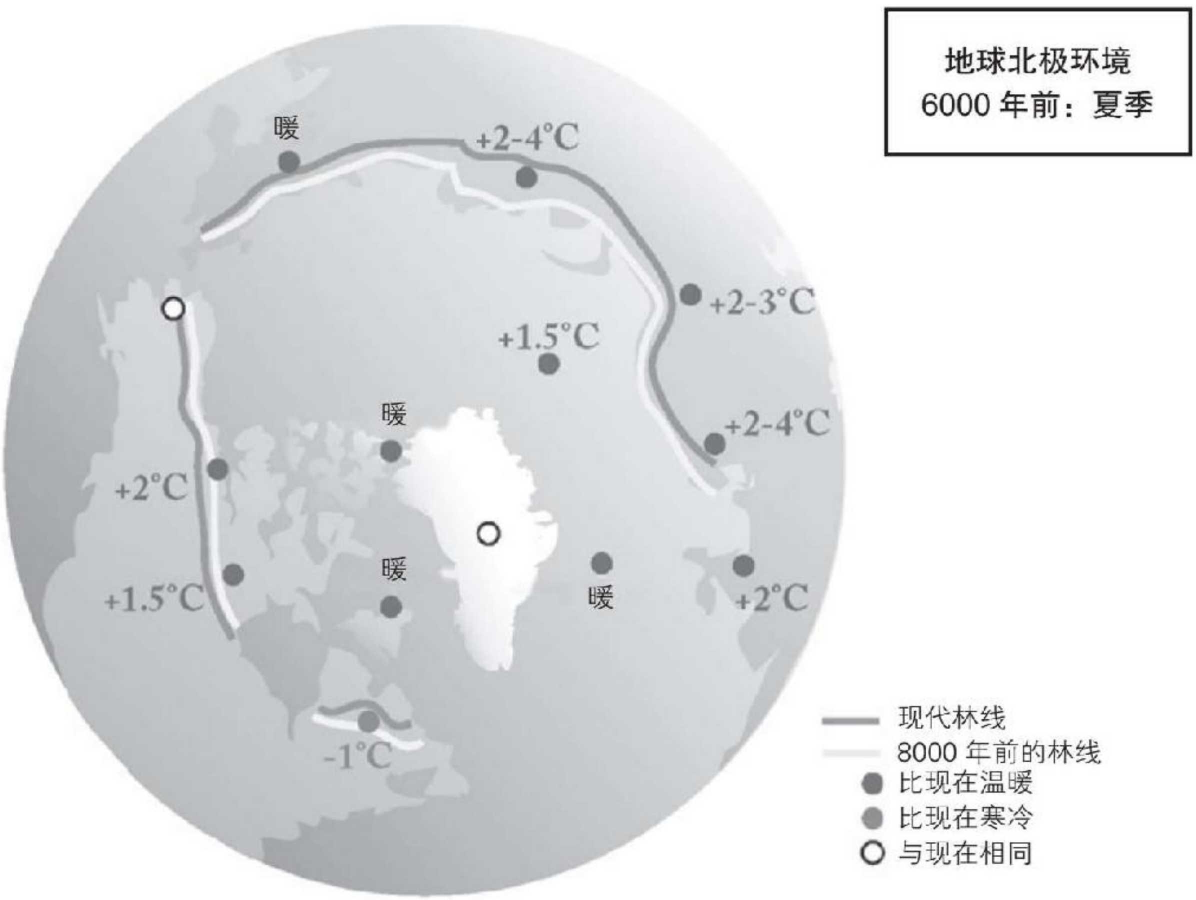
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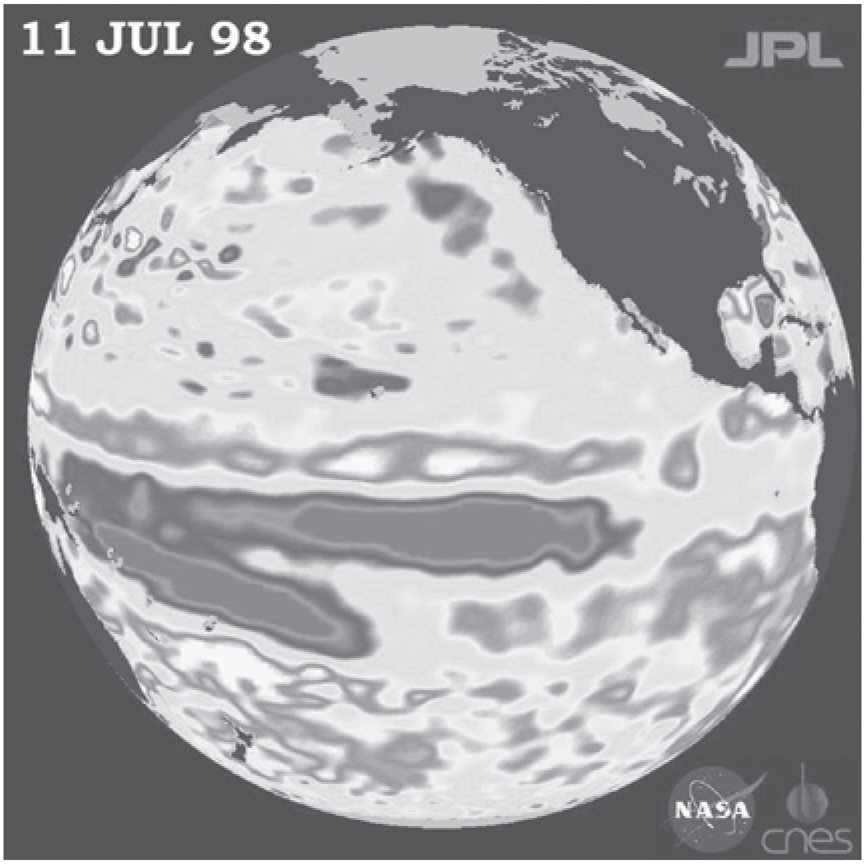
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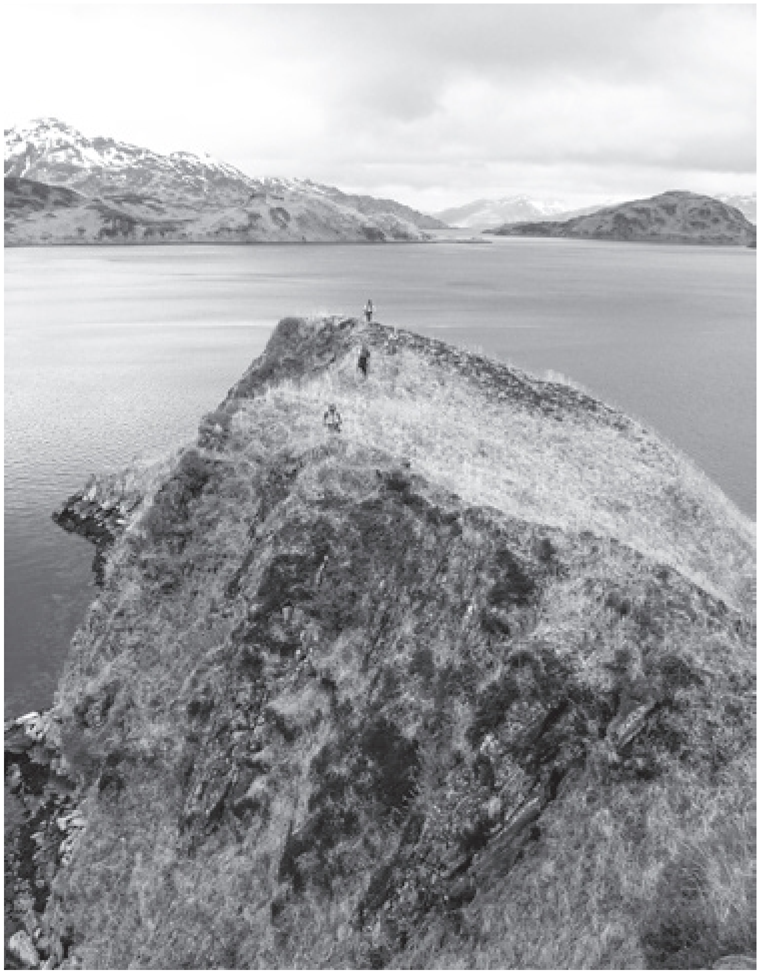
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5. [illegible]800—1000[illegible]200[illegible]50[illegible]475—[illegible]250[illegible]125—210[illegible]·[illegible]David A. Hodell[illegible]208[illegible]David A. Hodell, Mark Brenner, Jason H.Curtis, Thomas Guilderson, Solar Forcing of Drought Frequency in the Maya Lowlands, Science, Vol.292, Issue 5520, 2001, pp. 1367-1370[illegible]——[illegible]

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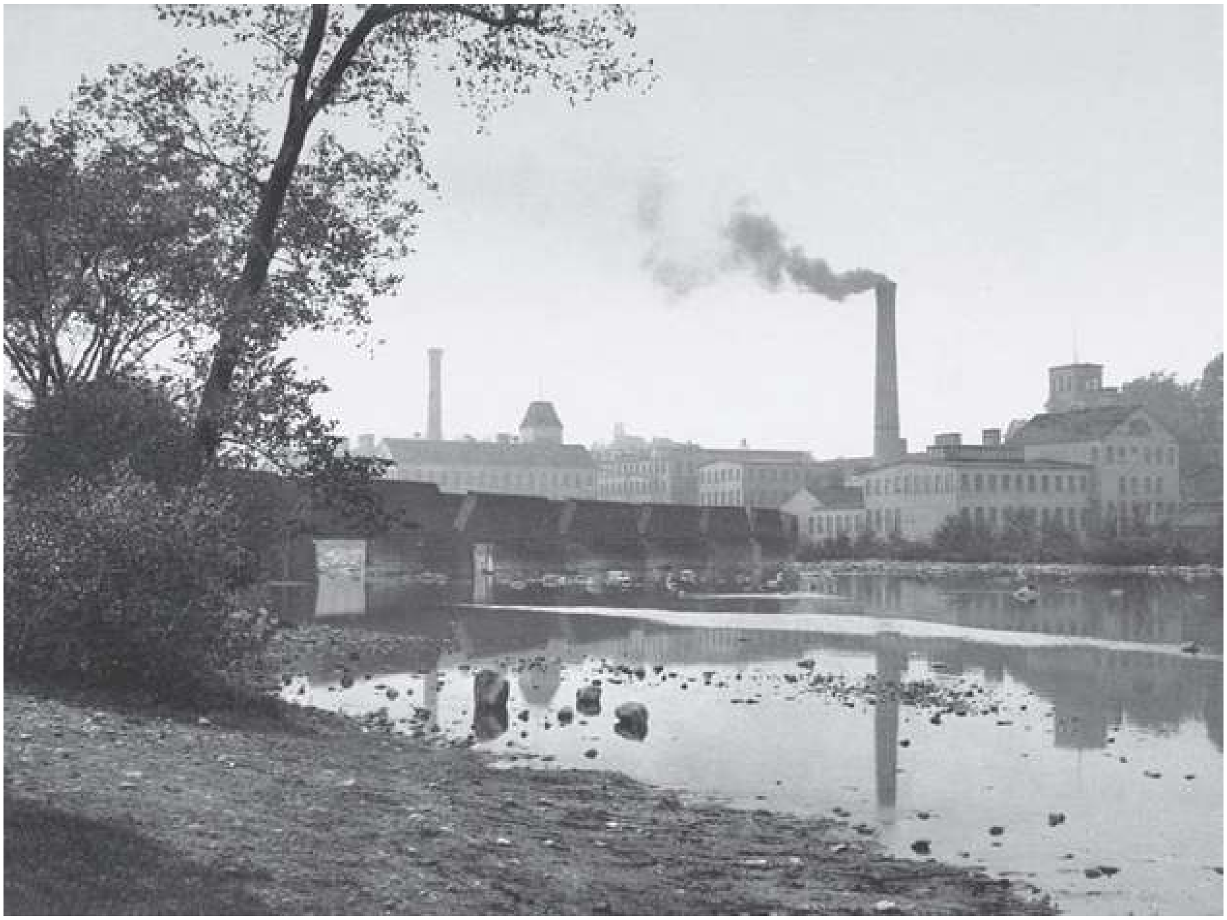
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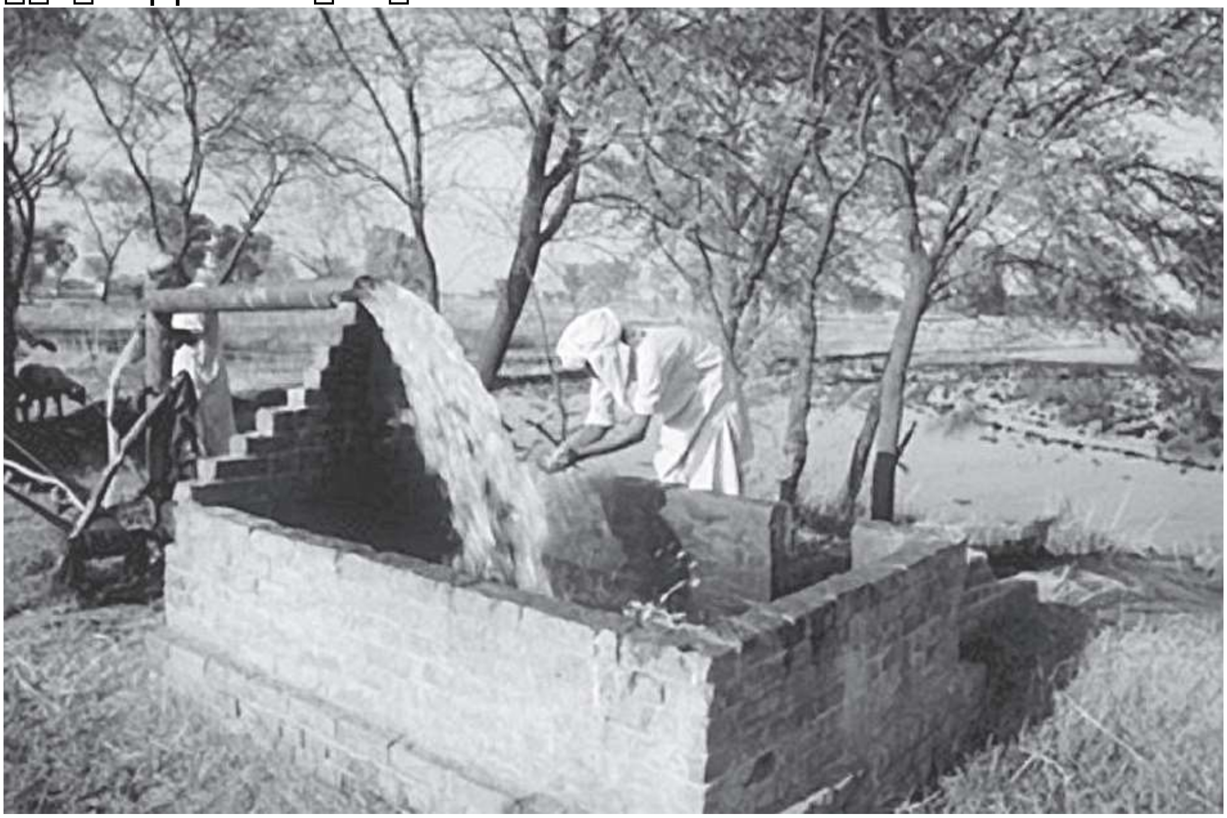
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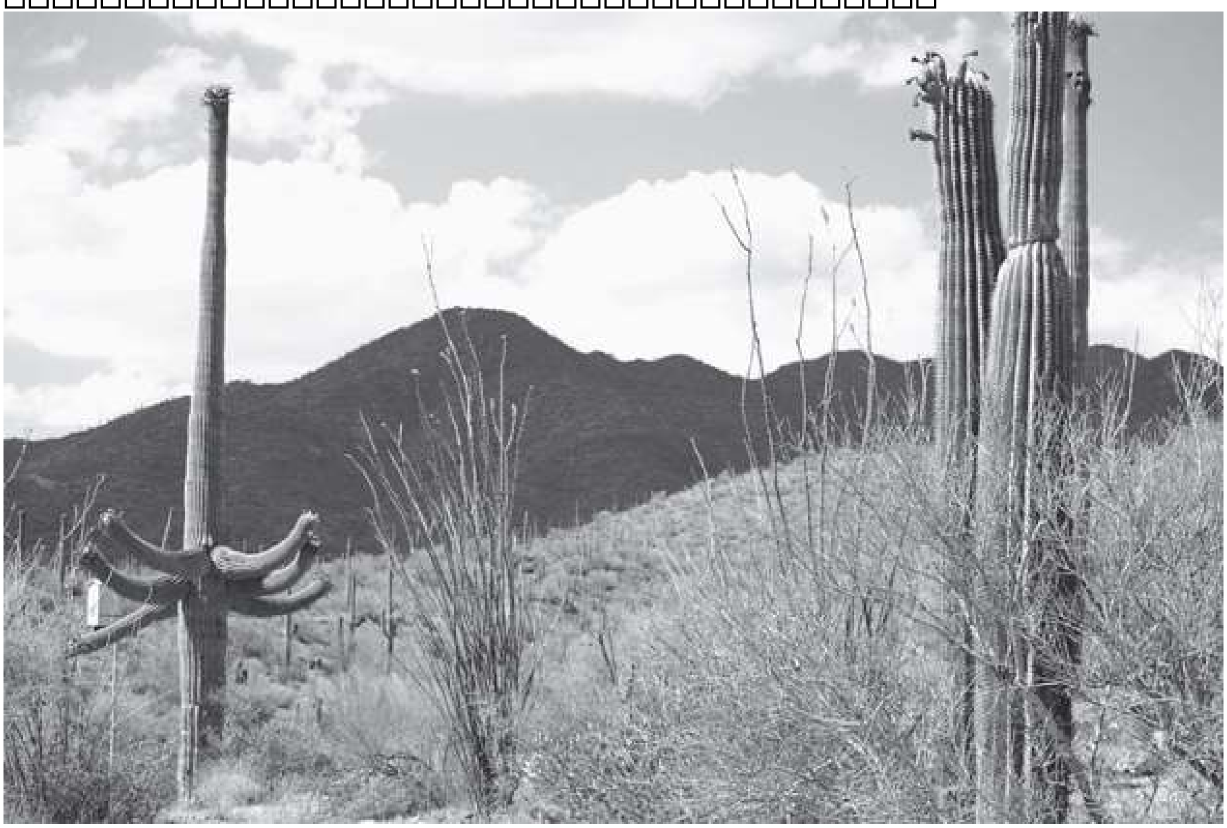
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Juan García Latorre

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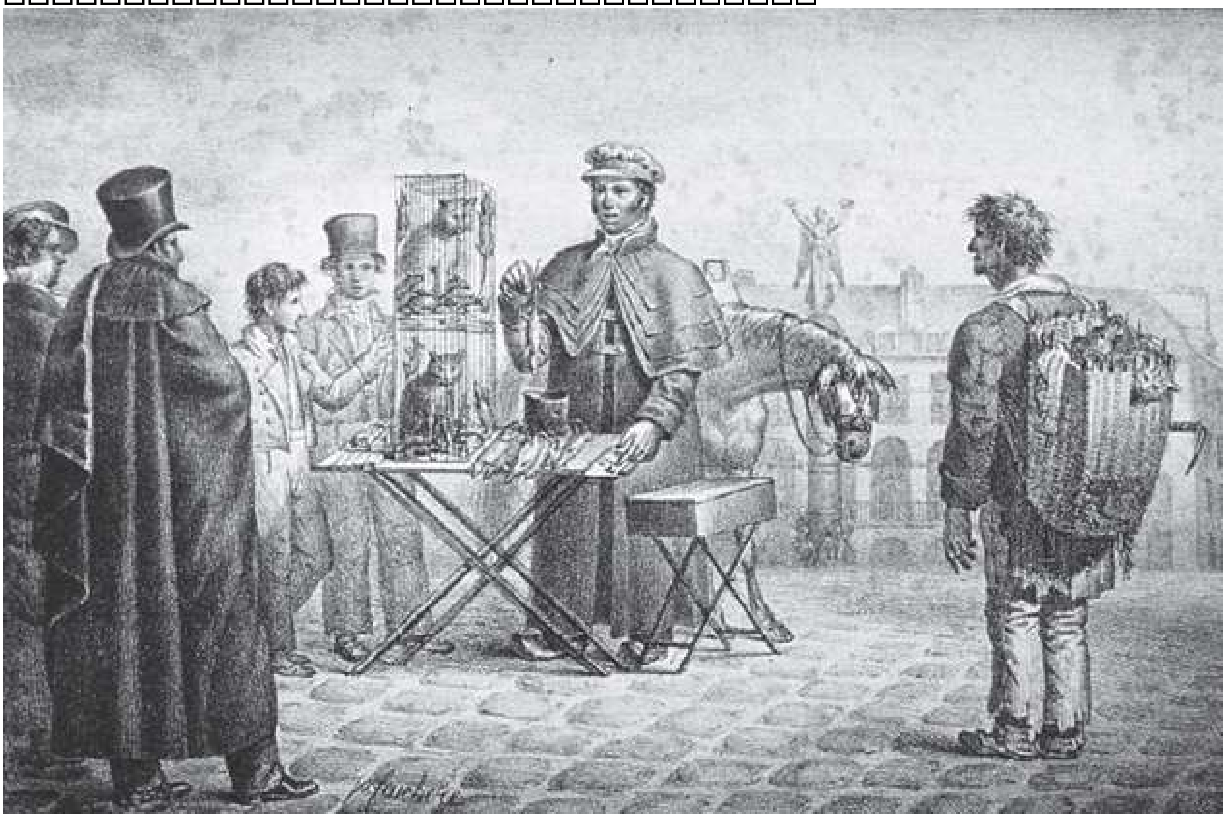
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Le Marchand de Mort aux Rats [illegible] Marlet [illegible]

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14[illegible]14[illegible]

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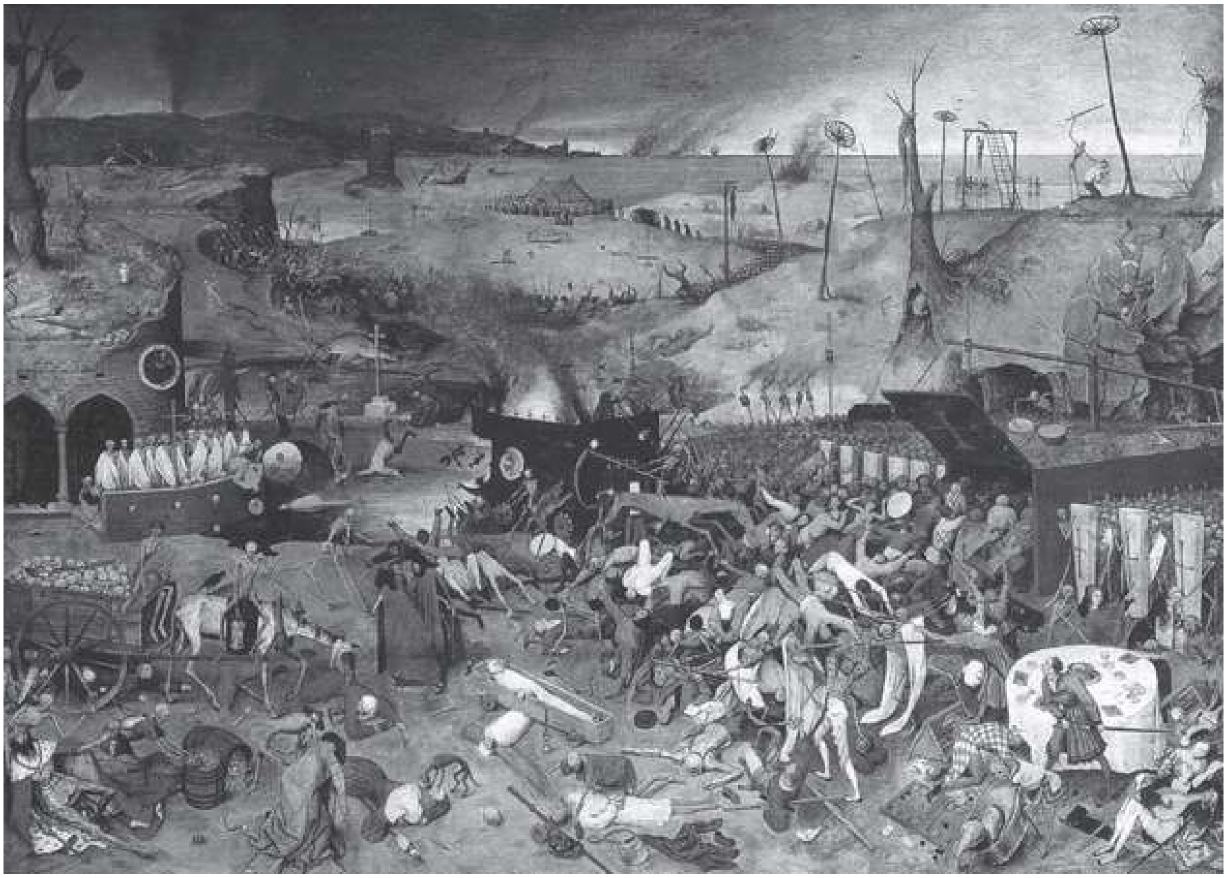
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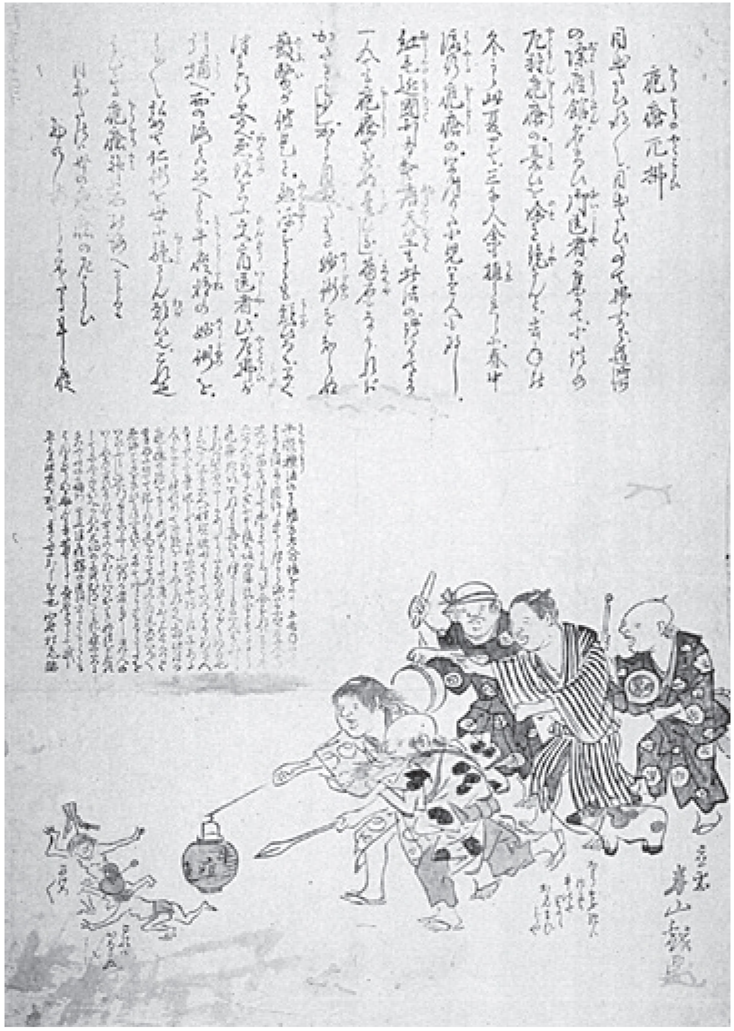
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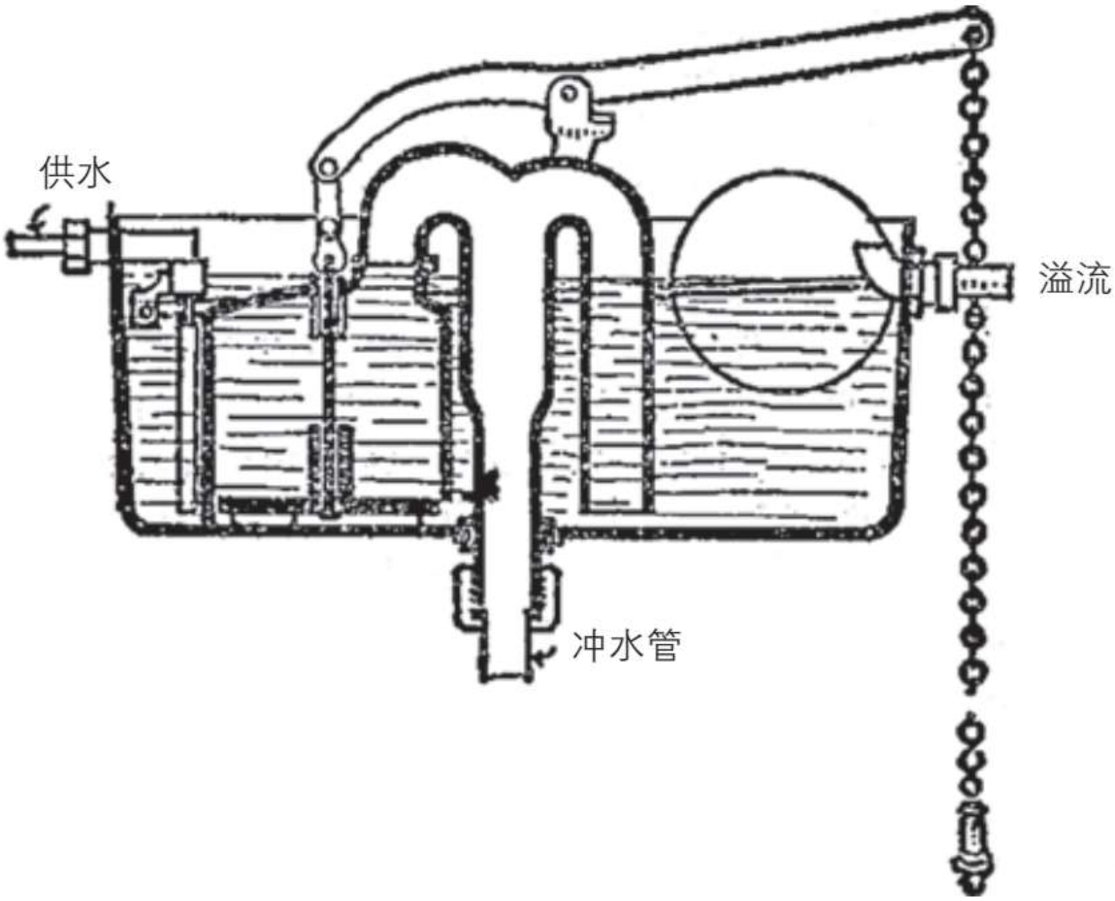
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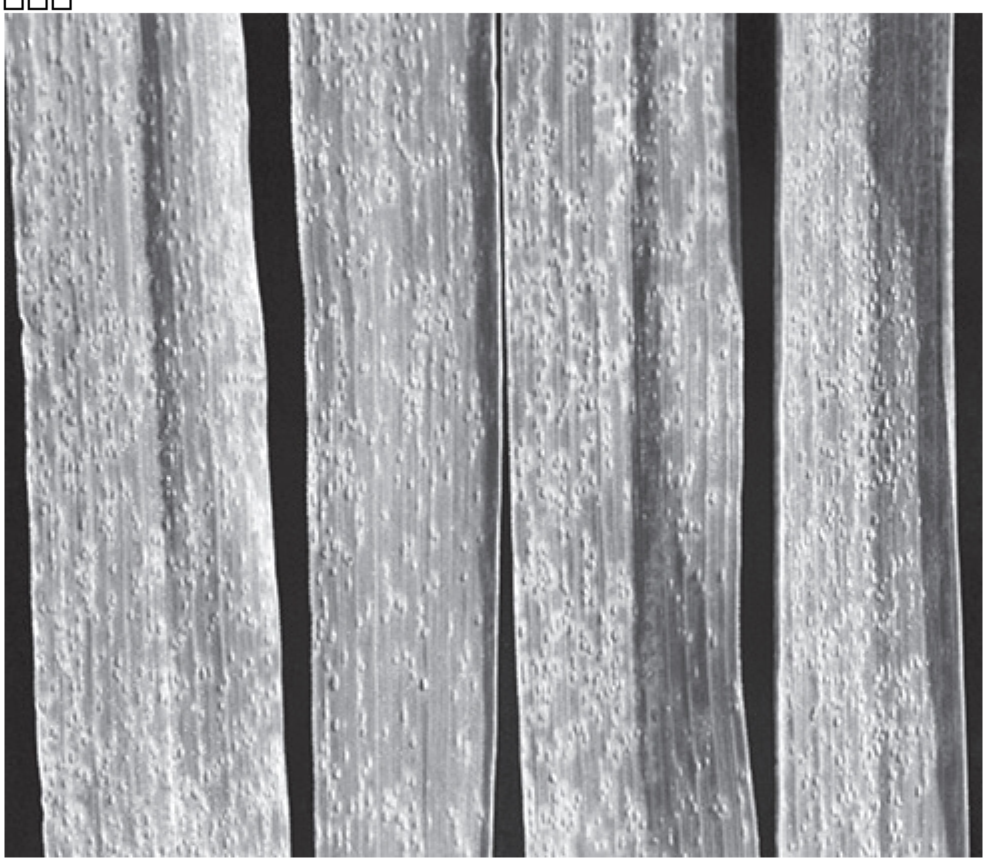
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[illegible]700[illegible]Robigus[illegible]“[illegible]”[illegible]1[illegible]200[illegible]Columella[illegible]



[illegible]·[illegible]James Kolmer[illegible]

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[illegible]16[illegible]——[illegible]1570[illegible]1650[illegible]

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[illegible]1845[illegible]6[illegible]1846[illegible]5[illegible]100[illegible]150[illegible]

[illegible]1861[illegible]——[illegible]“[illegible]”[illegible]Phytophthora infestans[illegible]

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18[illegible]·[illegible]William Stukeley[illegible]1687—1765[illegible]*Philosophy of Earthquakes*[illegible]

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[illegible]·[illegible]Robert Mallet[illegible]1810—1881[illegible]6000[illegible]1857[illegible]1912[illegible]·[illegible]Alfred Wegener[illegible]1880—1930[illegible]2[illegible]

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CONSTRUCTED & EXHIBITED
BY J.J. SHAW

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2003[illegible]12[illegible]26[illegible]6.5[illegible]8[illegible]4.32[illegible]3[illegible]10[illegible]85%[illegible]

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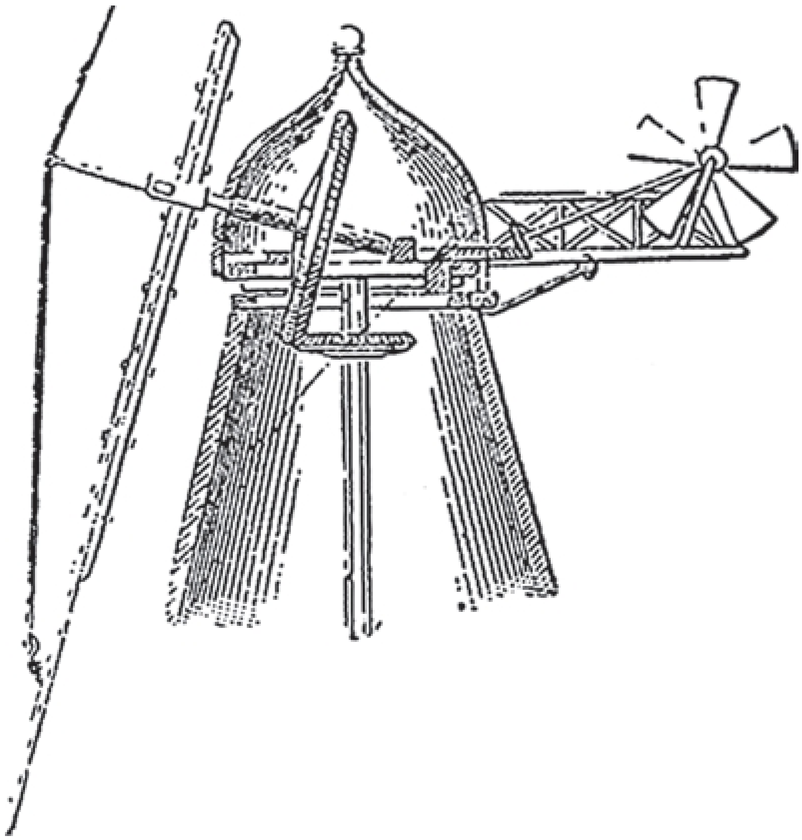
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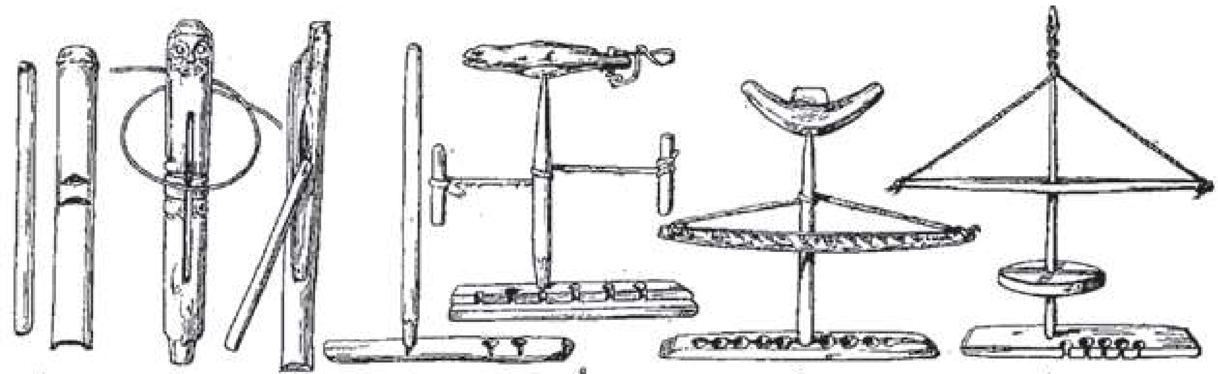
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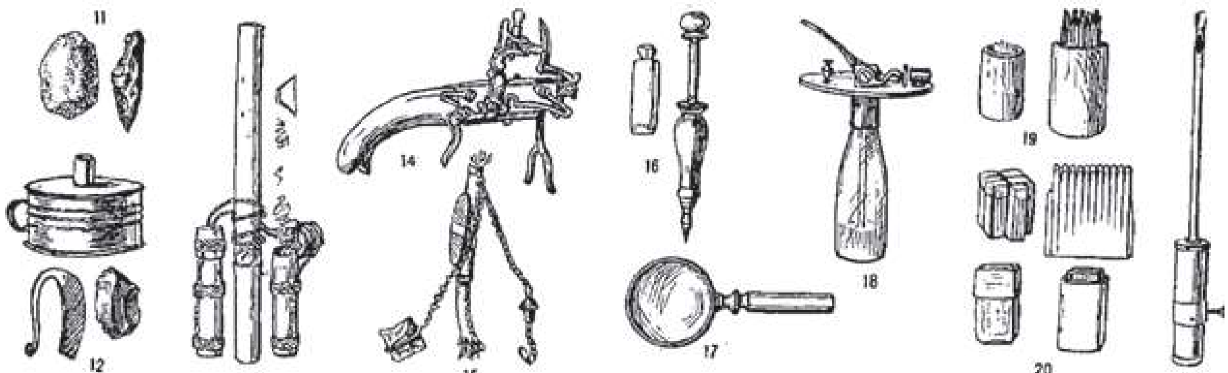
燃料	密度（兆焦 / 千克）
干粪	10~12
风干秸秆	14~16
风干木柴	15~17
木炭	28~29
褐煤	10~20
烟煤	20~26
无烟煤	27~30
原油	41~42
汽油	44~45
天然气	33~37

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[illegible]20%[illegible]18[illegible]/[illegible]29[illegible]/[illegible]60%[illegible]80%[illegible]1810[illegible]2500[illegible]17[illegible]



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[illegible]·[illegible]Russel Lee[illegible]1940[illegible]Farm Security Administration[illegible]

[illegible]1919[illegible]2500[illegible]20%[illegible]1[illegible]180[illegible]19[illegible]120[illegible]1900[illegible]60[illegible]90%[illegible]66%[illegible]——[illegible]

[illegible]500[illegible]1000[illegible]——[illegible]10[illegible]14[illegible]——[illegible]

[illegible]380[illegible]10~15[illegible]/[illegible]

30~40[illegible]/[illegible]50~70[illegible]/[illegible]*edictum de pretiis*[illegible]301[illegible]120[illegible]



[illegible]TranquilleMills[illegible]1871[illegible]·F.[illegible]Benjamin F. Baltzly[illegible]

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发动机	持续功率（瓦）
童工	30
瘦弱女子	60
强壮男性	100
毛驴	150
小型牛	300
普通马	600
大型马	800
早期小型拖拉机 (1920 年)	10 000
福特 T 型车（1908 年）	15 000
普通拖拉机 (1950 年)	30 000
本田思域 (2000 年)	79 000
大型拖拉机 (2000 年)	22 5000
大型柴油机 (1917 年)	400 000
大型船用柴油机 (1960 年)	30 000 000
波音 747 的四台燃气涡轮机 (1970 年)	60 000 000

[illegible]Smil(1994[illegible]2003[illegible]

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[illegible]

[illegible]19[illegible]19[illegible]80[illegible]20[illegible]1[illegible]1000[illegible]1000~10000[illegible]/[illegible]^{2}[illegible]1[illegible]~10[illegible]

[illegible]22~26[illegible]/[illegible]42~44[illegible]/[illegible]20[illegible]

[illegible]·[illegible]Thomas Newcomen[illegible]1700[illegible]0.5%[illegible]1800[illegible]5%[illegible]20[illegible]24[illegible]19[illegible]4000[illegible]10%[illegible]

[illegible]3 [illegible]

发动机	持续功率（瓦）
大型罗马水车（200 年）	2000
普通欧洲水车（1700 年）	4000
大型荷兰风车（1720 年）	5000
纽科门蒸汽机（1730 年）	10 000
最大瓦特蒸汽机（1800 年）	100 000
大型蒸汽发动机（1850 年）	250 000
帕森斯蒸汽涡轮机（1900 年）	1 000 000
最大蒸汽发动机 (1900 年)	3 500 000
普通蒸汽涡轮机 (1950 年)	100 000 000
最大蒸汽涡轮机 (2000 年)	1 500 000 000

[illegible]Smil(1994[illegible]2003[illegible]

[illegible]19[illegible]1900[illegible]6[illegible]19[illegible]30[illegible]4[illegible]

[illegible]19[illegible]20[illegible]20%[illegible]1866[illegible]19[illegible]80[illegible]1900[illegible]30%[illegible]19[illegible]80[illegible]10[illegible]

[illegible]90%[illegible]——[illegible]——[illegible]20[illegible]30[illegible]

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[illegible]1900—2000[illegible]16[illegible]61[illegible]2000[illegible]1900[illegible]25[illegible]8[illegible]10[illegible]20[illegible]30[illegible]



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[illegible]1993[illegible]Joan Lebold Cohen[illegible]

[illegible]

[illegible]4 [illegible]

发射物	发射物的动能（焦）
弓箭	20
重型十字弓的箭矢	100
南北战争时的火枪子弹	1×10^{3}
突击步枪的子弹（M16）	2×10^{3}
中古大炮的石球	50×10^{3}
18 世纪大炮的铁球	300×10^{3}
一战时大炮的榴霰弹	1×10^{6}
二战时重型高射炮的榴弹	6×10^{6}
M1A1 艾布拉姆斯坦克的贫铀弹	6×10^{6}
被劫持的波音 767(2001 年 9 月 11 日）	4×10^{9}

爆炸物	释放的能量（焦）
手榴弹	2×10^{6}
自杀式人肉炸弹	100×10^{6}
二战时大炮的榴霰弹	600×10^{6}
硝酸铵-燃油（ANO） 卡车炸弹（500 千克）	2×10^{9}
广岛原子弹（1945 年）	52×10^{12}
美国洲际弹道导弹的弹头	1×10^{15}
试爆的新地岛氢弹（1961 年）	240×10^{15}

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[illegible]1905[illegible]Audubon Society[illegible]·[illegible]·[illegible]1919[illegible]

[illegible]

[illegible]——[illegible]——[illegible]1801[illegible]1864[illegible]·[illegible]·[illegible]1875[illegible]·[illegible]1905[illegible]·[illegible]·[illegible]Dietrich Brandis[illegible]

20[illegible]International Union for the Protection of Nature[illegible]1949[illegible]1956[illegible]International Union for the Conservation of Nature and Natural Resources[illegible]IUCN[illegible]



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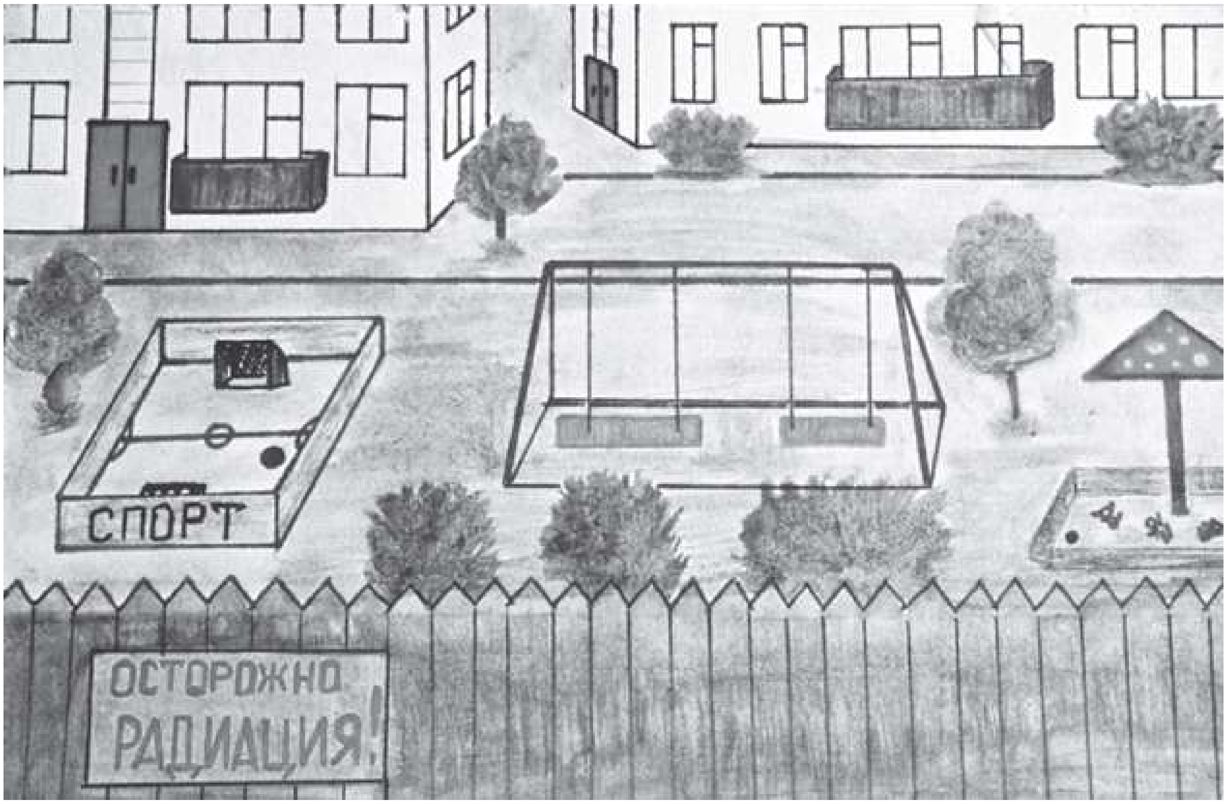
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2008[illegible]Mile High[illegible]Invesco Field[illegible]

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ΤΟ ΠΕΡΙΒΑΛΛΟΝ
ΕΙΝΑΙ ΤΟ ΣΠΙΤΙ ΜΑΣ



1992[illegible]1986[illegible]“[illegible]”

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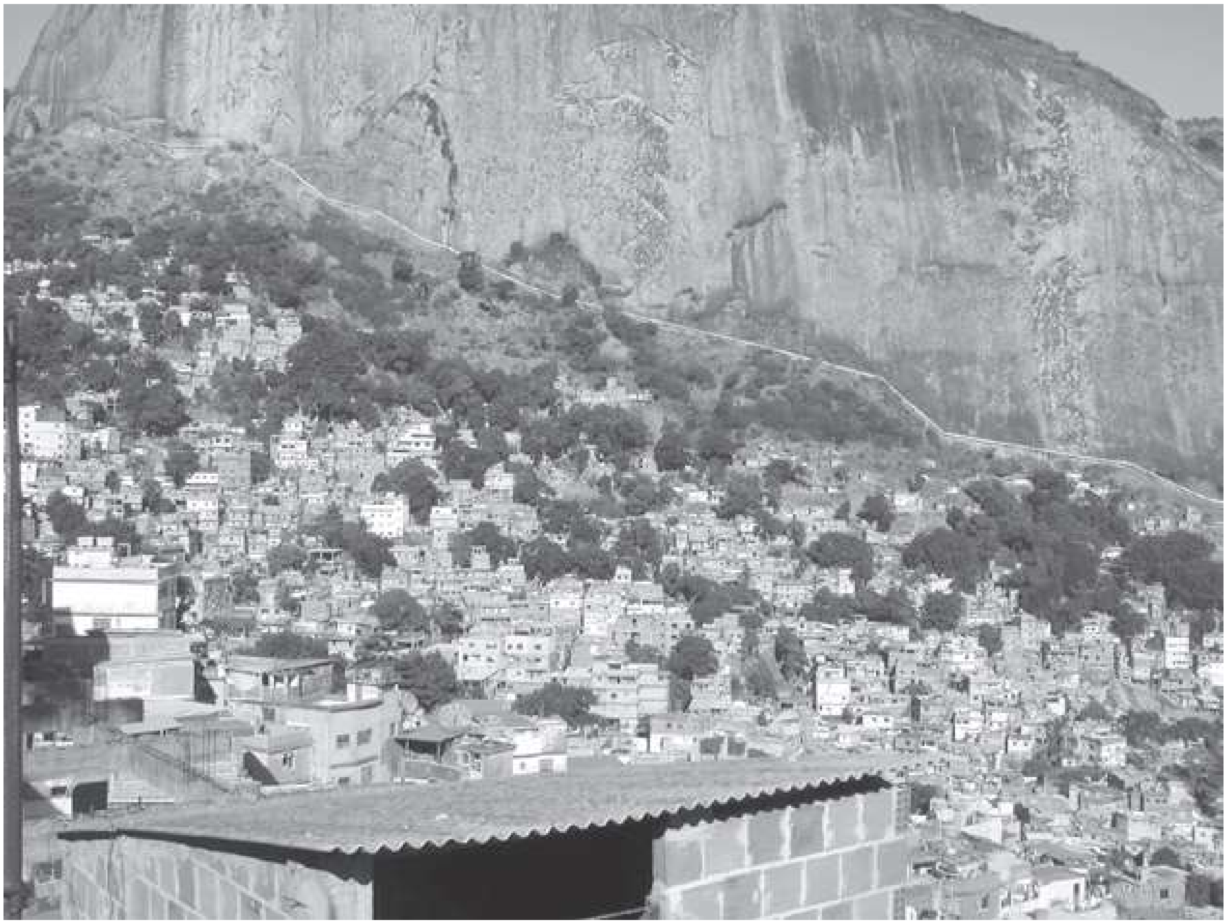
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[illegible]·[illegible]Walter Wischmeier[illegible]USLE[illegible]——[illegible]RKLSCP[illegible]RUSLE[illegible]



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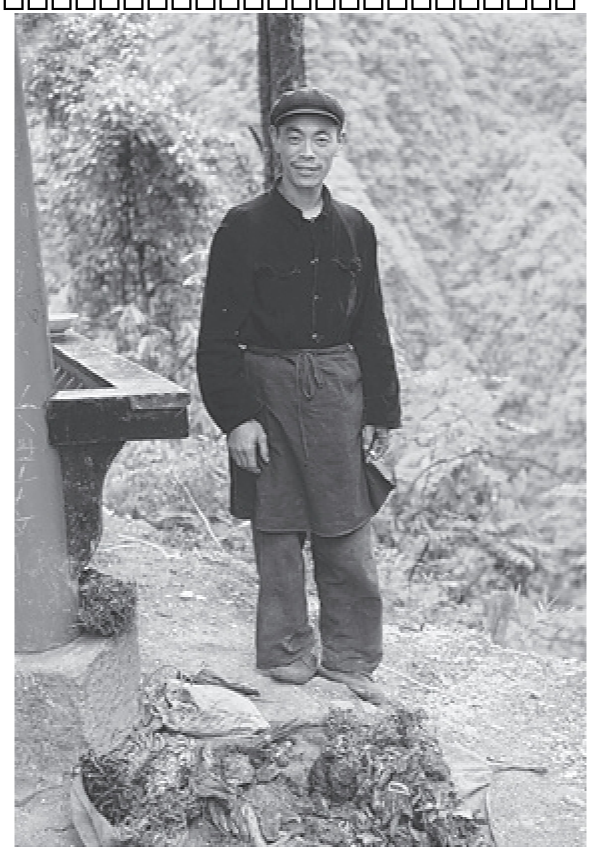
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代	纪	世
新生代（6500 万年前至今）	第四纪	全新世
		更新世
	第三纪	中新世
		渐新世
		始新世
		古新世
中生代（2.48 亿—6500 万年前）	白垩纪	——
	侏罗纪	——
	三叠纪	——
古生代（5.4 亿—2.48 亿年前）	二叠纪	——
	石炭纪	——
	泥盆纪	——
	志留纪	——
	奥陶纪	——
	寒武纪	——
前寒武纪（46 亿—5.4 亿年前）	——	——

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白垩纪末期	约 6500 万年前
晚三叠纪	约 2.1 亿—2.06 亿年前
晚二叠纪–早三叠纪	约 2.52 亿—2.45 亿年前
晚泥盆纪	约 3.64 亿—3.54 亿年前
晚奥陶纪	约 4.49 亿—4.43 亿年前

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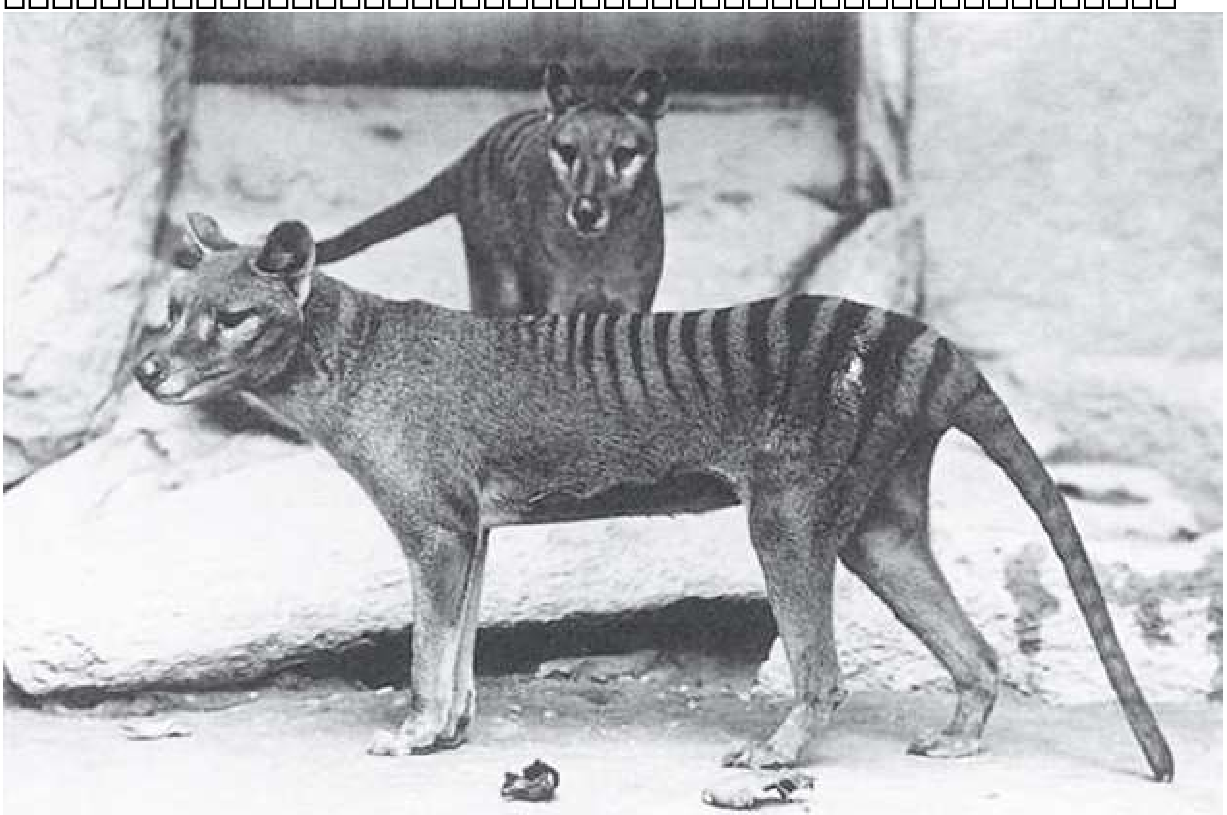
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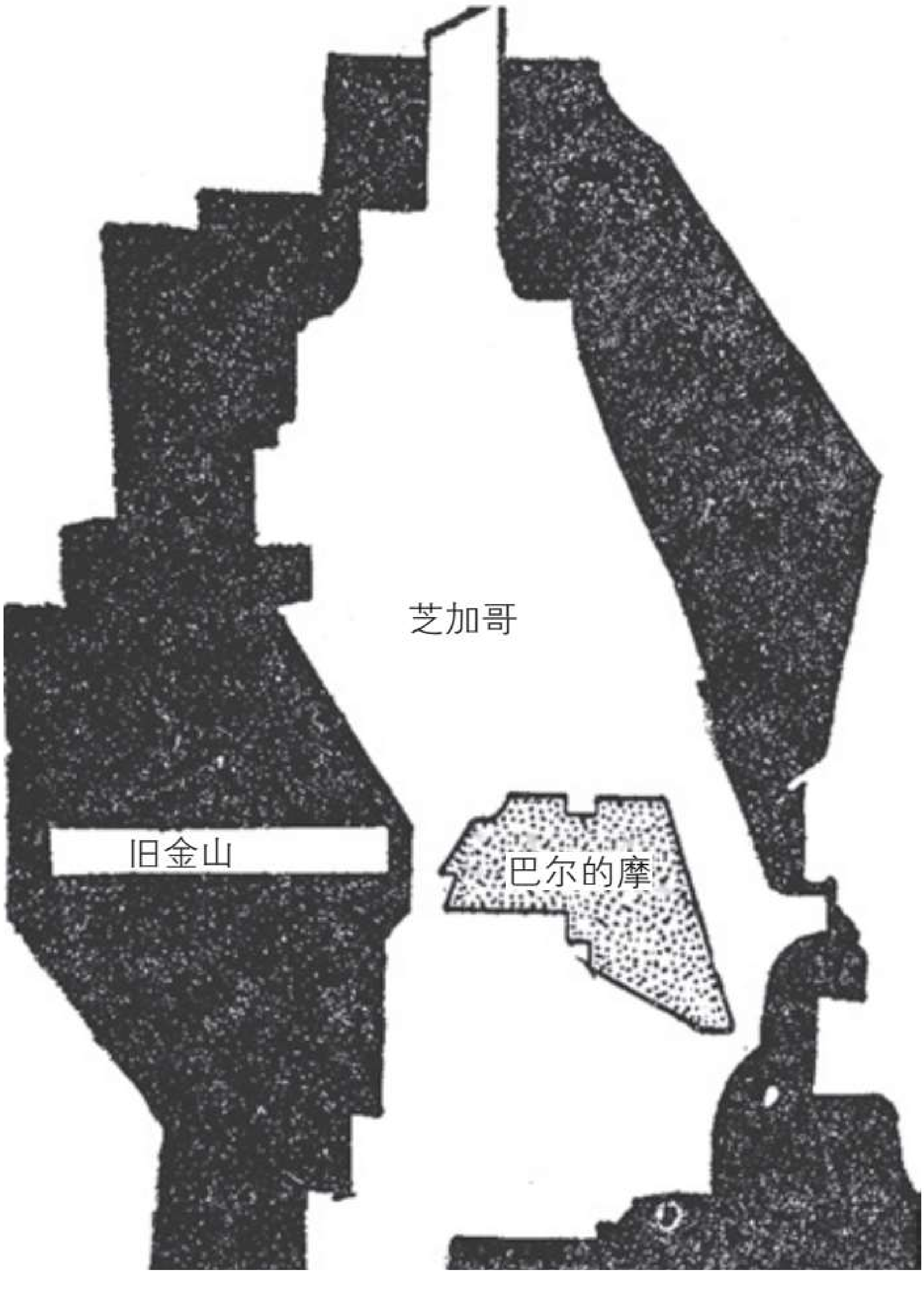
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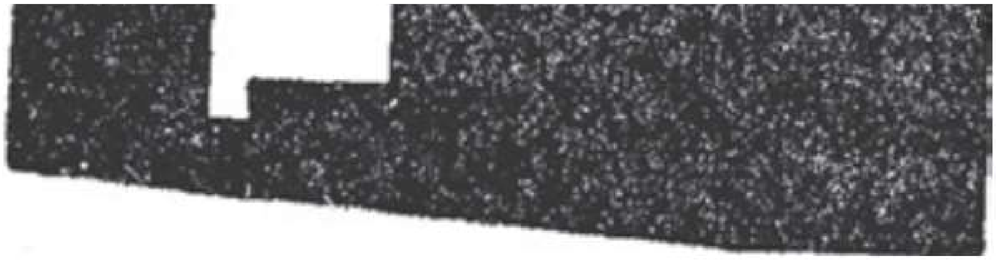
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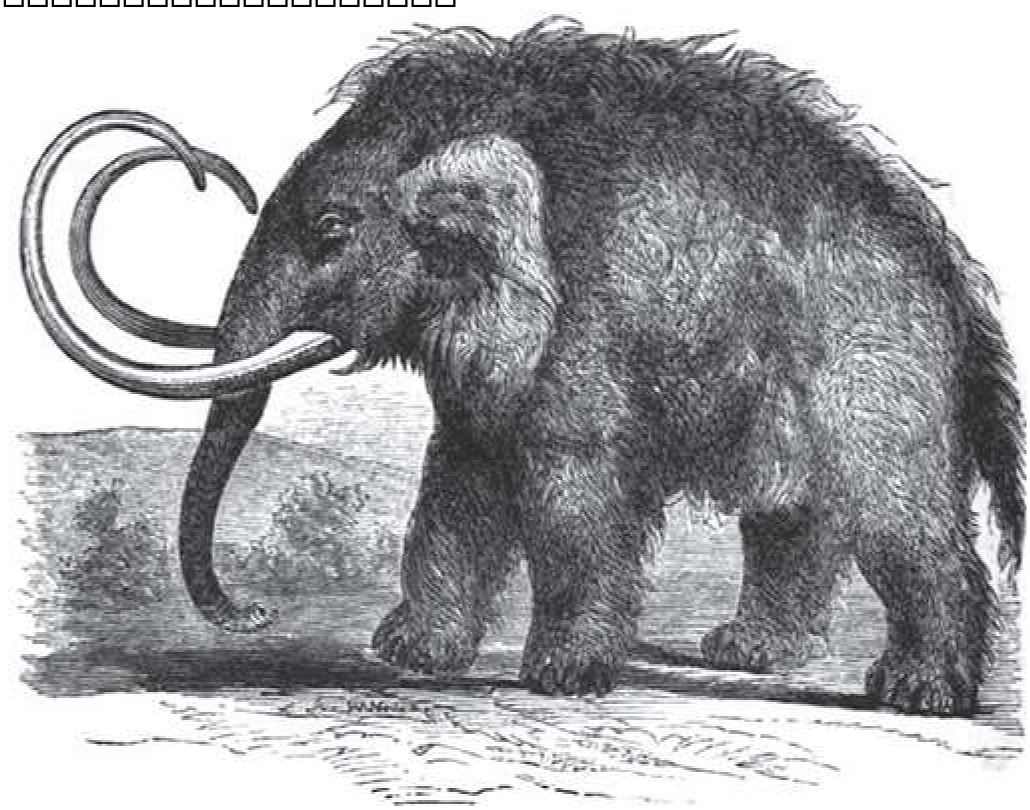
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[illegible]*Asian Perceptions of Nature*[illegible]·[illegible]Ole Bruun[illegible]·[illegible]Arne Kalland[illegible]S. N.[illegible]S. N.Eisenstadt[illegible]“[illegible]reality[illegible]”[illegible]Bruun and Kalland 1995[illegible]11[illegible]“[illegible]”[illegible]“[illegible]”[illegible]“[illegible]”[illegible]“[illegible]”[illegible]Bruun and Kalland 1995[illegible]153[illegible]

nature[illegible]*A Documentary History of Primitivism*[illegible]·O.[illegible]Arthur O.Lovejoy[illegible]nature[illegible]nature[illegible]“[illegible]”[illegible]700[illegible]nature[illegible]524—[illegible]456[illegible]nature[illegible]nature[illegible]nature[illegible]——[illegible]——[illegible]nature[illegible]

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[illegible]”[illegible]（Glacken 1967：39）

[illegible]nature[illegible]14[illegible]“[illegible]”[illegible]nature[illegible]—“[illegible]”[illegible]17[illegible]nature[illegible]nature[illegible]“[illegible]”（Williams 1976：185）



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[illegible]428/7—[illegible]348/7[illegible]106—[illegible]43[illegible]18[illegible]·[illegible]*The Death of Nature*[illegible]204—270[illegible]12[illegible]“[illegible]……[illegible]”[illegible]Merchant 1980：10[illegible]C. S.[illegible]“[illegible]”[illegible]17[illegible]18[illegible]

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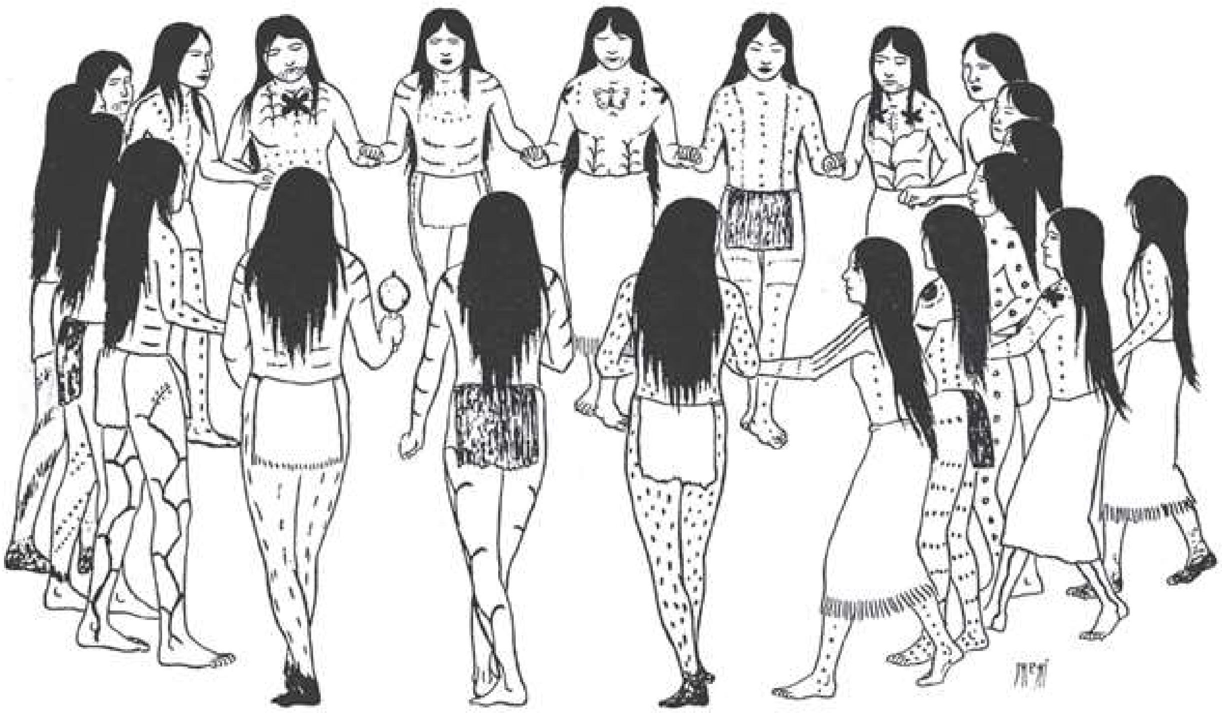
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[illegible]·[illegible]1766—1834[illegible]“[illegible]”[illegible]1859[illegible]“[illegible]”[illegible]“[illegible]”[illegible]Darwin 1964[illegible]489-490[illegible]

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20[illegible]·[illegible]Daniel Botkin[illegible]*Discordant Harmonies*[illegible]“[illegible]”[illegible]Botkin[illegible]1990[illegible]189[illegible]“[illegible]”[illegible]Botkin 1990[illegible]62[illegible]21[illegible]

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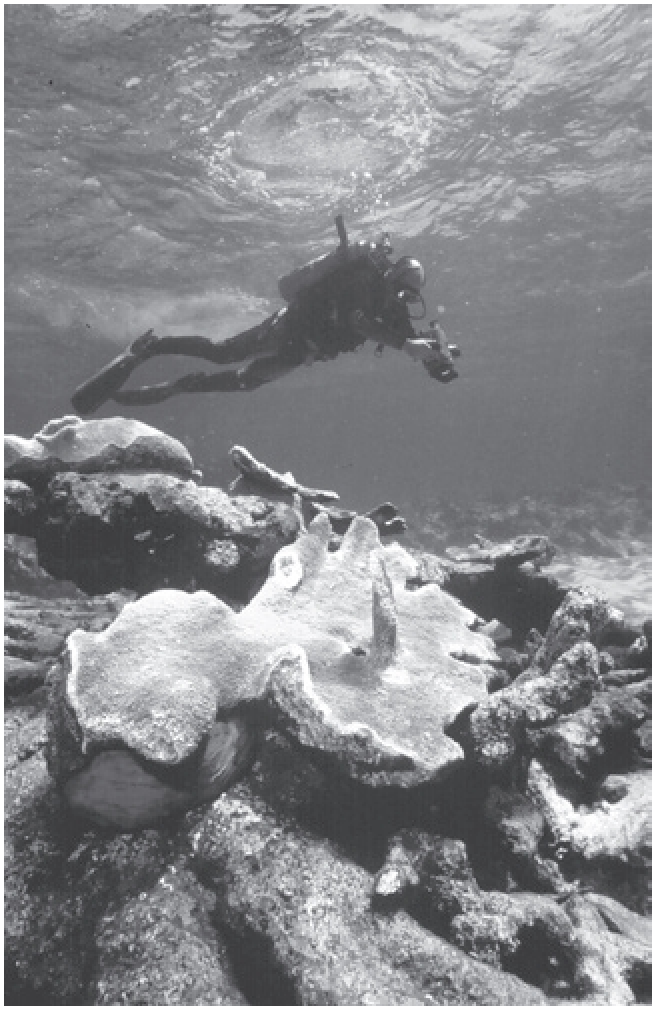
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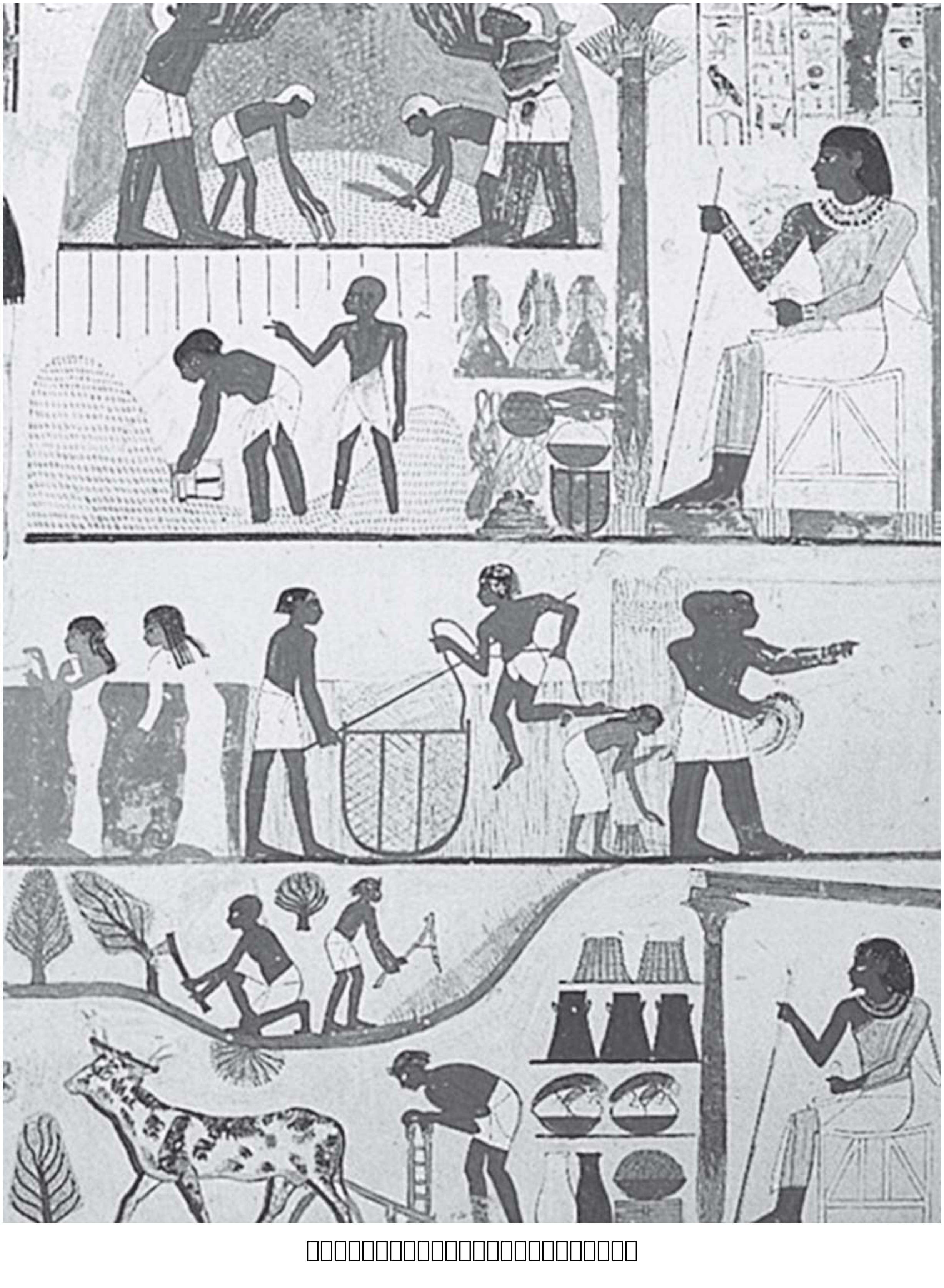
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日期	人口数量（百万）
公元前 30 万年	1
公元前 1 万年	4
公元前 1000 年	50
公元 1 年	200
公元 500 年	200
公元 1000 年	270
公元 1200 年	380
公元 1400 年	370
公元 1600 年	550
公元 1800 年	920
公元 1900 年	1625
公元 2000 年	6000

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亚洲	480	602	749	937	1386	3766
欧洲	140	187	266	401	576	728
非洲	95	90	95	120	206	840
北美洲	1	6	26	81	167	319
中南美洲	11	19	33	63	162	531
大洋洲	2	2	2	6	13	32

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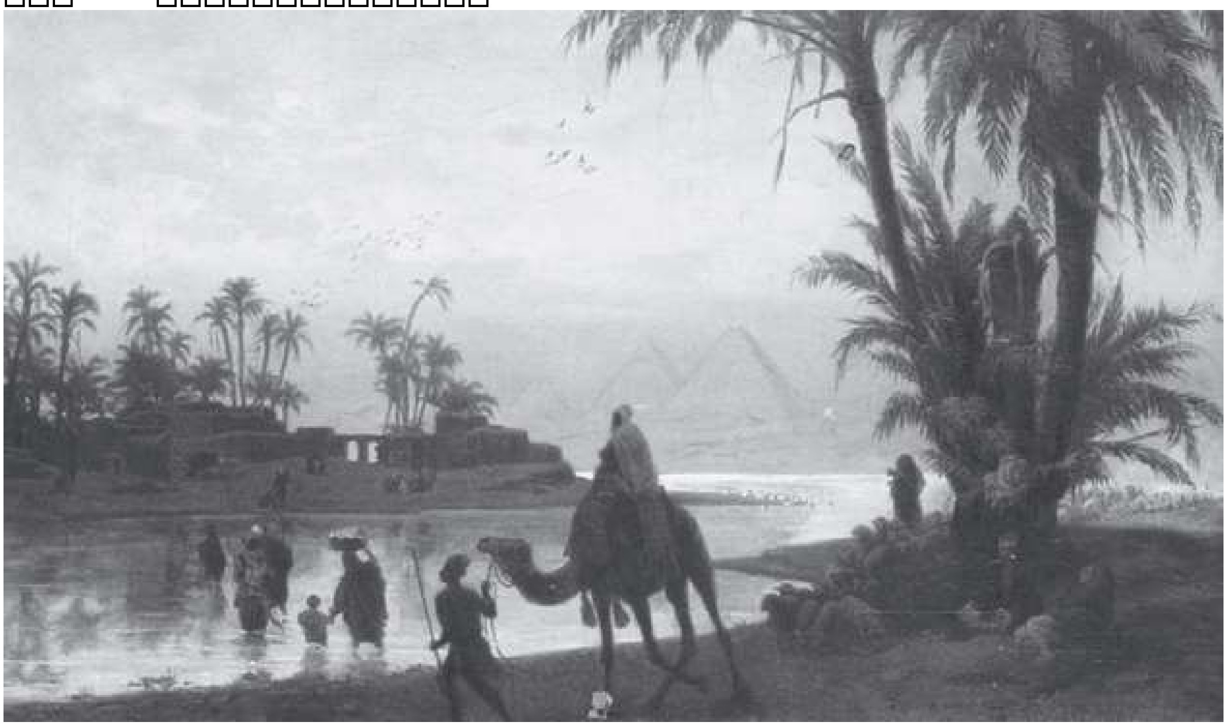
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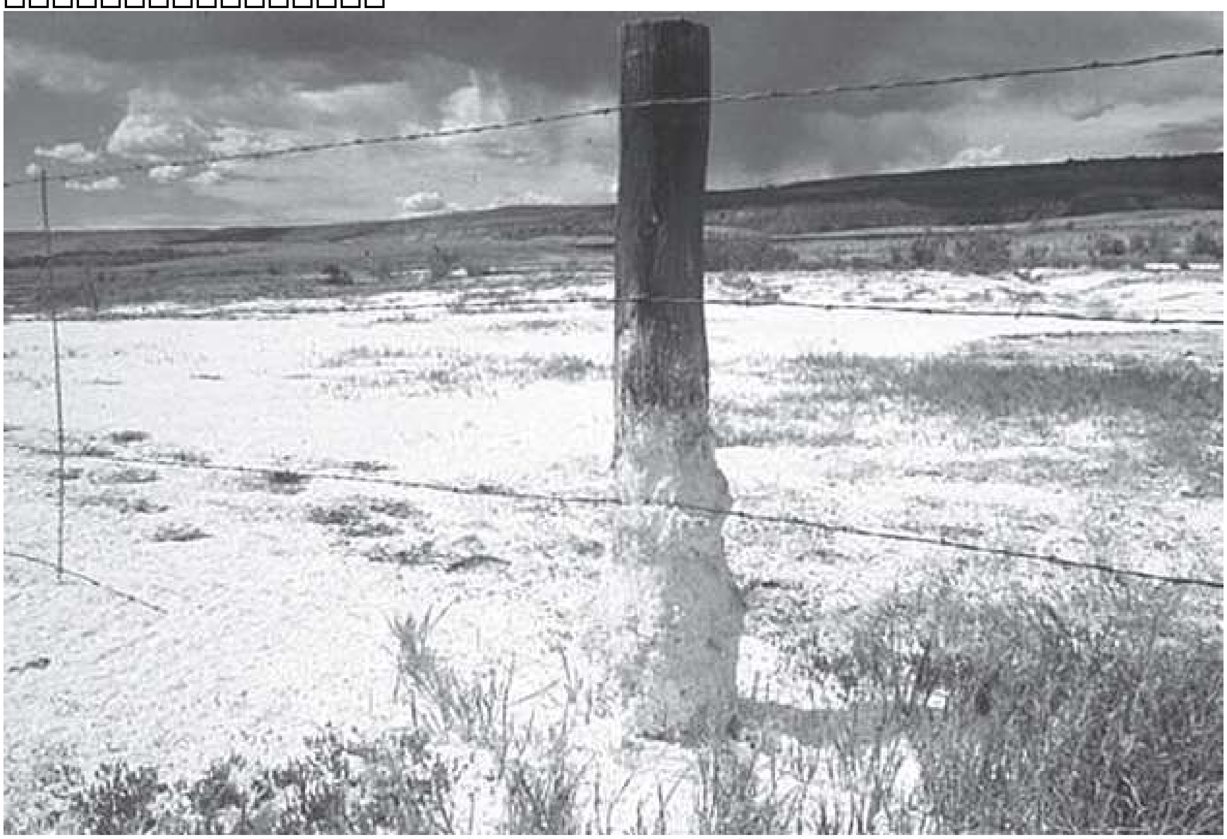
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非洲	535 000	270 000	0.5
亚洲	1 949 000	1 219 000	0.6
大洋洲	386 000	1 997 000	5.2
北美洲	82 000	96 000	1.2
南美洲	694 000	596 000	0.9

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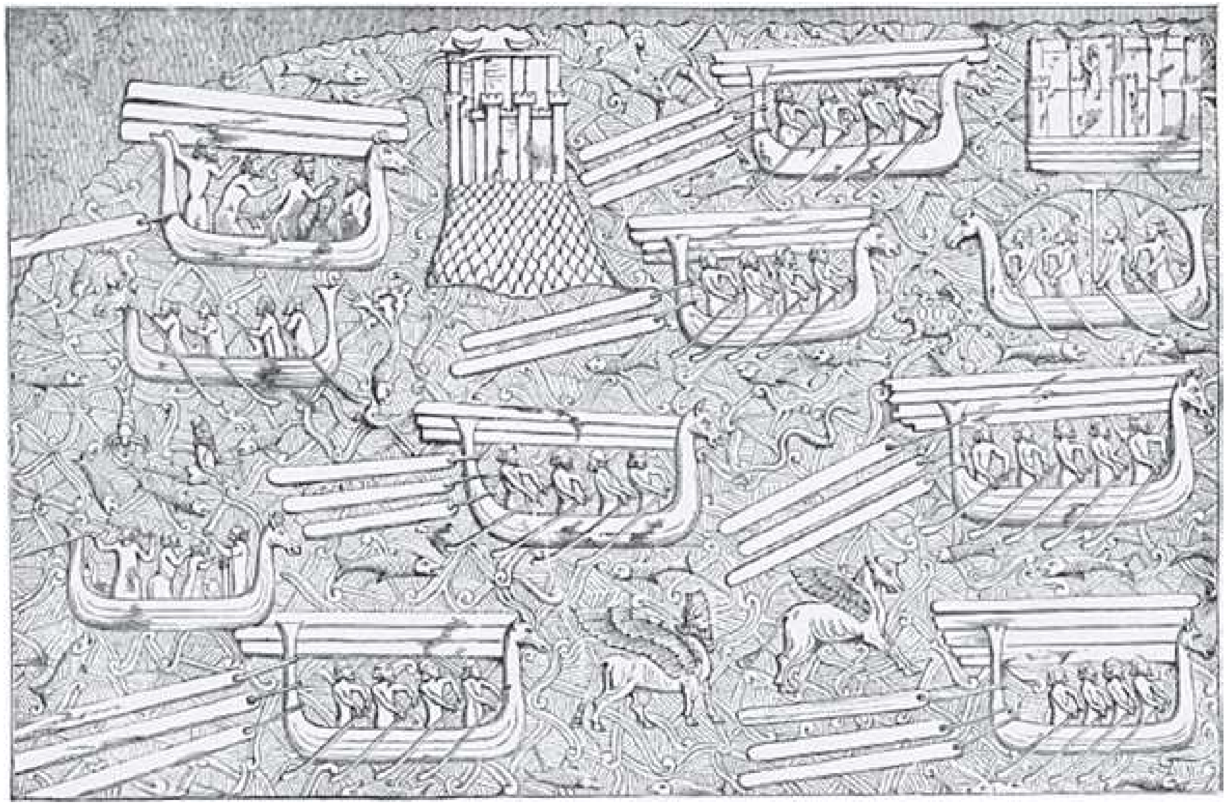
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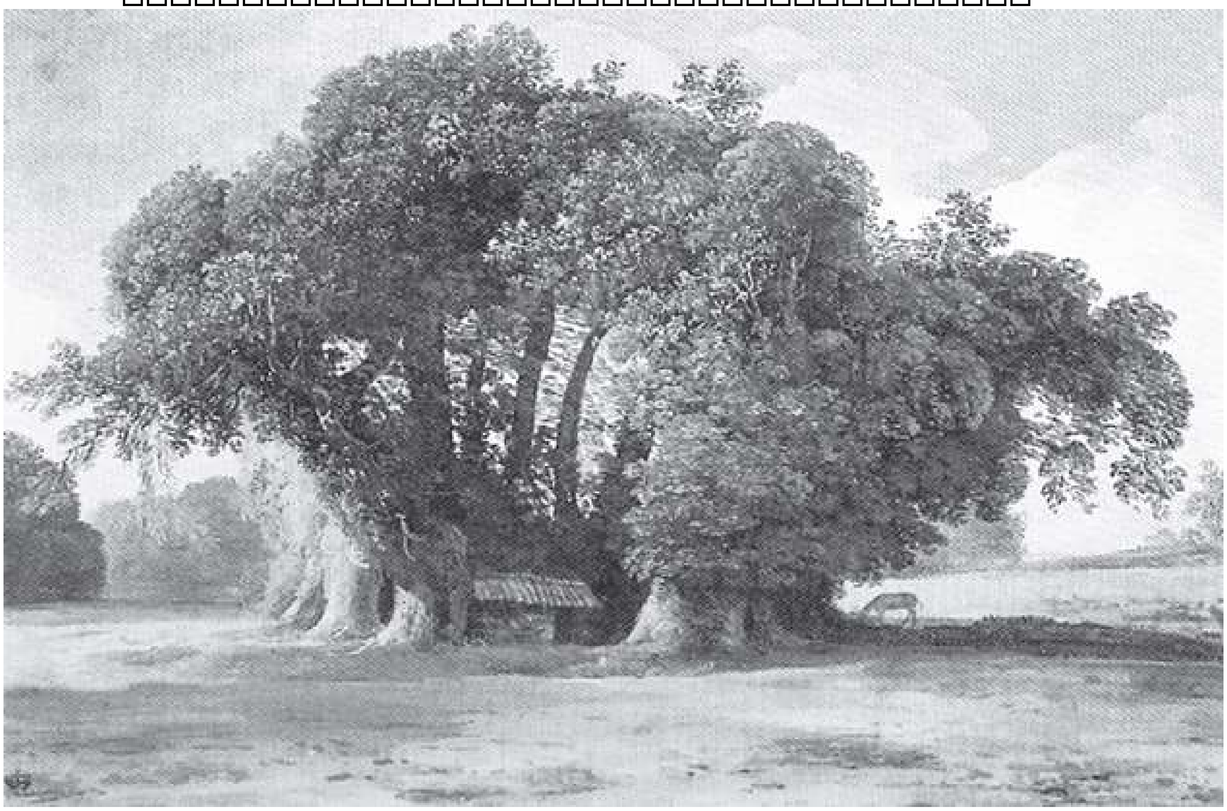
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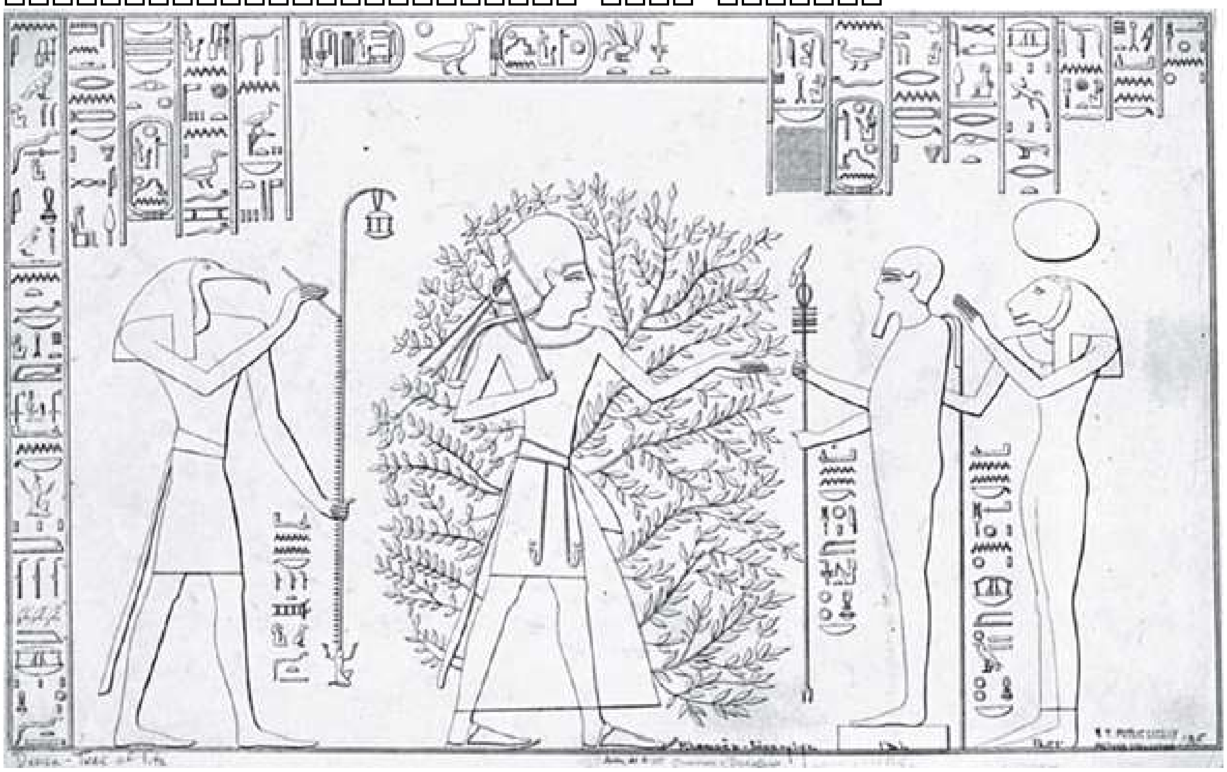
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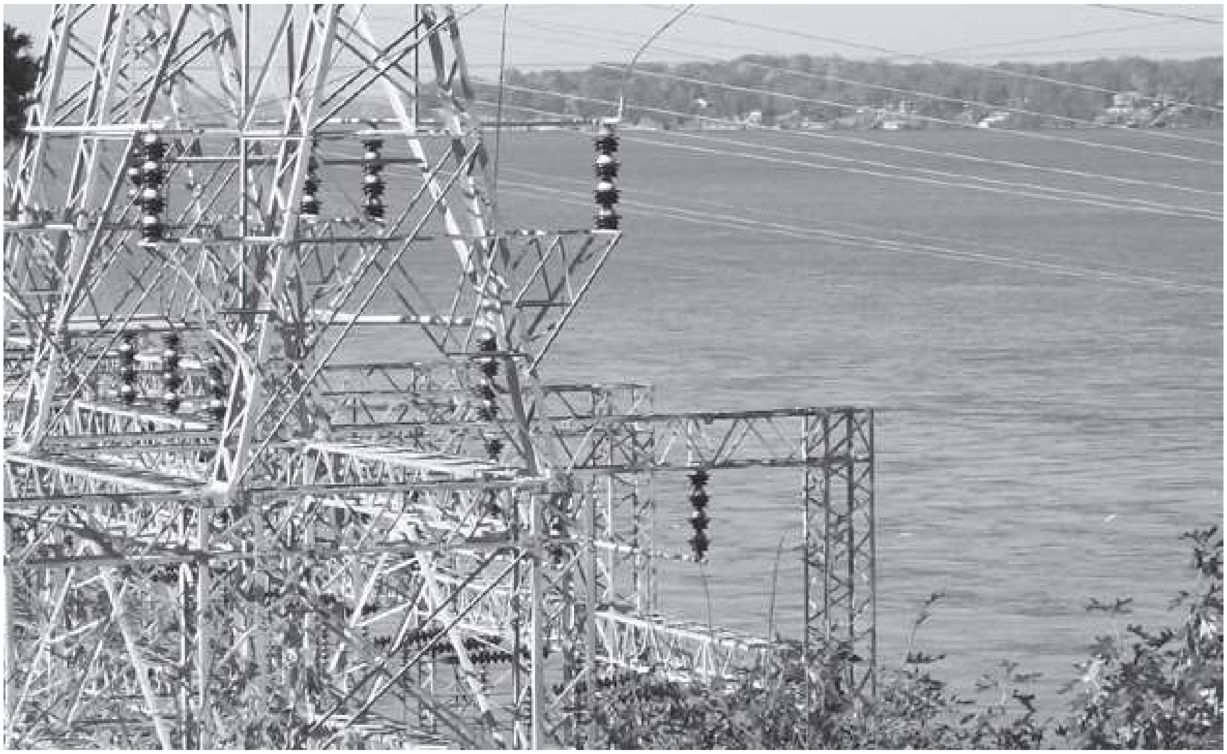
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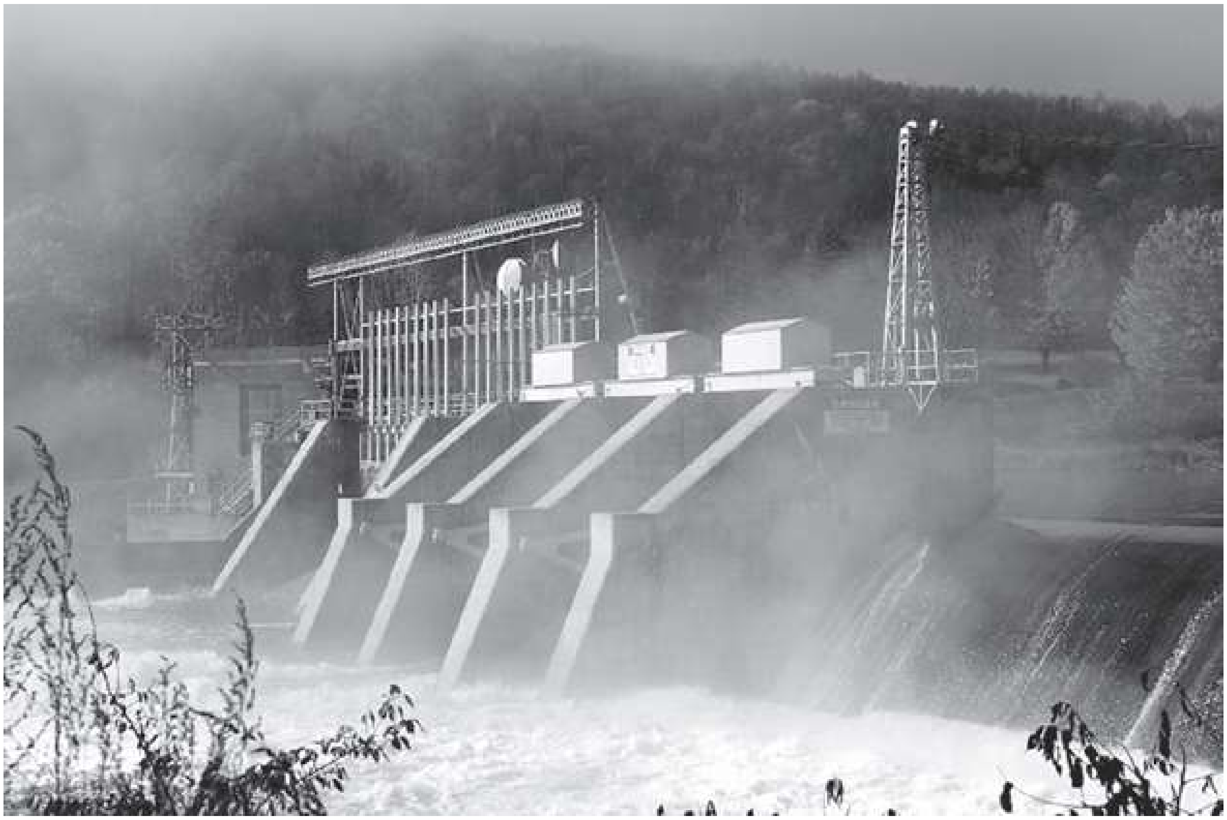


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